IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An encoder, comprising:

a spread spectrum encoder configured to encode data values with one or more spread spectrum codes and generate a corresponding spread spectrum encoded data stream; and

a slip encoder configured to encode other data values into the encoded data stream by varying time spacing between the spread spectrum codes, wherein the other data values correspond to an amount of clock periods inserted by the slip encoder between the generation of adjacent ~~non-overlapping~~ spread spectrum codes so that generation of every first entire spread spectrum code is completed and then a time gap with no spread spectrum code is inserted before starting generation of every second adjacent spread spectrum code, where the time gap between ending every first spread spectrum code and beginning every second adjacent spread spectrum code is proportional to one of the other data values and a time delay position in completing transmission of every entire second adjacent spread spectrum code corresponds to the time gap.

2. (Previously Presented) An encoder, comprising:

a spread spectrum encoder configured to encode data values with one or more spread spectrum codes and generate a corresponding spread spectrum encoded data stream; and

a slip encoder configured to encode other data values into the encoded data stream by varying time spacing between the spread spectrum codes,

wherein the slip encoder includes a slip counter that delays the spread spectrum encoder from transmitting spread spectrum codes for a number of clock periods corresponding with associated data values.

3. (Currently Amended) The encoder according to claim 2 wherein the slip encoder inserts a slip pattern between adjacent spread spectrum codes while being delayed by the slip counter, the slip pattern being a square wave signal that is different from the spread spectrum codes and alternates between a logic one value and a logic zero value one each clock cycle.

4. (Previously Presented) The encoder according to claim 1 wherein the spread spectrum encoder includes a storage device used for storing the one or more spread spectrum codes and a shifter for serially encoding some of the data values with the one or more spread spectrum codes.

5. (Previously Presented) The encoder according to 4 wherein the shifter includes:

a multiplexer having inputs for receiving different chips of the spread spectrum codes and an output;

a code counter coupled to the multiplexer sequentially selecting different chips of the spread spectrum codes for outputting from the multiplexer; and

an exclusive-OR circuit combining the outputs from the multiplexer with the data values.

6. (Previously Presented) The encoder according to claim 5 wherein the slip encoder includes a slip counter that delays the code counter from outputting the chips for adjacent spread spectrum codes according to associated data values.

7. (Previously Presented) An encoder, comprising:

a spread spectrum encoder configured to encode data values with one or more spread spectrum codes and generate a corresponding spread spectrum encoded data stream; ~~and~~

a slip encoder configured to encode other data values into the encoded data stream by varying time spacing between the spread spectrum codes; and

a data inverter converting a sequence of bits representing selected data values into lesser inverted data values, the slip encoder varying the spacing between some spread spectrum codes according to the inverted data values.

8. (Currently Amended) The encoder according to claim 7 wherein a header in the encoded data stream identifies the inverted data values so that the converted sequence of bits still represent the same selected data values but reduce the time spacing between the spread spectrum codes representing the selected data values.

9. (Currently Amended) A spread spectrum correlator, comprising:

a spread spectrum decoder configured to decode data from a spread spectrum encoded data stream; and

a slip decoder configured to decode additional data associated with different time gaps between codes in the spread spectrum encoded data stream, wherein the additional data values correspond to an amount of ~~non-overlapping~~ time delay detected between adjacent ~~non-overlapping~~ spread spectrum codes in the spread spectrum encoded data stream, the amount of time delay being a time gap when no spread spectrum codes are being transmitted where the time gap starts after a first spread spectrum code has been completely transmitted and the time delay ends before a second adjacent spread spectrum code begins being transmitted so that the entire first spread spectrum code and the entire second adjacent spread

spectrum code provide portions of the decoded data and the time gap between the entire first spread spectrum code and the entire second adjacent spread spectrum code corresponds with some of the additional data.

10. (Previously Presented) The spread spectrum correlator according to claim 9 wherein a number of time units associated with the time gaps corresponds with different data values.

11. (Original) The spread spectrum correlator according to claim 9 wherein the spread spectrum decoder includes a storage device used for storing one or more reference spread spectrum codes; and

a sampling circuit taking samples of the spread spectrum encoded data stream and comparing the samples with the reference spread spectrum codes.

12. (Original) The spread spectrum correlator according to claim 11 including a match counter counting a number of chips for the reference spread spectrum codes that match and mismatch the samples taken by the sampling circuit and identifying data values according to the number of counted matches and mismatches.

13. (Previously Presented) A spread spectrum correlator, comprising:

a spread spectrum decoder configured to decode data from a spread spectrum encoded data stream; and

a slip decoder configured to decode additional data associated with different time gaps between codes in the spread spectrum encoded data stream,

wherein the slip decoder includes a slip counter that identifies an amount of time between the data values identified by ~~the match~~ slip counter.

14. (Original) The spread spectrum correlator according to 13 wherein the slip counter subtracts a transmit time value associated with transmitting the spread spectrum codes from the identified time between data values.

15. (Original) The spread spectrum correlator according to claim 9 including a data inverter identifying inverted data values output from the slip decode and inverting bits for the identified inverted data values.

16. (Currently Amended) A method for encoding data, comprising:

encoding a first set of data values into an encoded data stream using spread spectrum Pseudo Noise (PN) codes; and

encoding a second set of data values into the encoded data stream by varying an amount of ~~non-overlapping~~ time delay inserted between the ~~generation~~ transmission of sequentially generated ~~non-overlapping~~ PN codes ~~are~~ output in the encoded data stream, the time delay being an amount of time gap inserted only after completing transmission of a first PN code and only before starting transmission of a second adjacent PN code so that the second set of data values are associated with time gaps when PN codes are not being transmitted.

17. (Previously Presented) The method according to claim 16 including delaying encoding between each of the first set of data values into the encoded data stream for

inserting a number of time increments between adjacent PN codes corresponding to the second set of data values.

18. (Original) The method according to claim 16 including transmitting and receiving the encoded data stream using a wireless Universal Serial Bus (USB) device.

19. (Original) The method according to claim 16 including extracting the first set of data from the encoded data stream by identifying the PN codes in the encoded data stream and extracting the second set of data from the encoded data stream by identifying an amount of time gap between the identified PN codes.

20. (Original) The method according to claim 19 including:

comparing samples of the encoded data stream with reference PN codes;

identifying bits in the first set of data values when a predetermined number of the samples match or a predetermined number of the samples mismatch the reference PN codes;

identifying an amount of time slip between the identified bits in the first set of data values; and

identifying bits in the second set of data values according to the amount of identified time slip.